

REMARKS

By this Amendment, claims 1, 12, 22 and 23 are amended to merely clarify the recited subject matter and claim 24 (patentable for reasons commensurate with those presented herein) is newly presented to further claim the disclosed invention. Claims 1-24 are pending.

Claims 1-5, 8-12, 15-16 and 21-23 were rejected under 35 U.S.C. 102(b) as being anticipated by Nishizato et al. (U.S. Patent No. 5,440,887; hereafter "Nishizato"), claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Nishizato and Sivaramakrishnan et al. (U.S. Patent No. 6,224,681; hereafter "Sivaramakrishnan"), claims 7 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nishizato and Yuuki et al. (U.S. Patent No. 5,776,254; hereafter "Yuuki"), and claims 13-14 and 18-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nishizato and Hofmann et al. (U.S. Patent No. 4,847,469; hereafter "Hofmann").

Applicants traverse the rejections because the cited prior art references fail to disclose, teach or suggest the claimed invention recited in the rejected claims. For example, the cited prior art references fails to disclose, teach or suggest the claimed invention wherein the vaporization valve body is located on a side opposite to the vaporizing chamber with respect to the small aperture, the vaporization valve body being entirely located outside the vaporizing chamber, thereby permitting uninhibited flow of vapor of the liquid material achieving a smooth flow of vapor of the liquid material in the vaporizing chamber, as recited in the rejected claims.

Nishizato merely discloses a vaporizer which vaporizes a liquid material under a depressurized atmosphere, the vaporizer comprising: a liquid storing chamber (Figures 2 and 3, 6) temporarily storing the liquid material therein; a vaporizing chamber (13) set in the depressurized atmosphere; a small aperture (23) connecting between the liquid storing chamber and the vaporizing chamber so as to supply the liquid material to the vaporizing chamber.

However, the vaporization valve body is 12a not 7a, which is a valve body for a flow rate control valve. Thus, Nishizato merely discloses a vaporizer-feeder having a vaporization valve 12 in which a valve body 12a is located in a vaporization chamber 13. However, the valve body 12a blocks flow of the vaporized liquid in the vaporization chamber 13 since the

valve body 12a exists in the vaporization chamber 13 and occupies a large portion of the vaporization chamber.

Sivaramakrishnan fails to remedy this deficiency of Nishizato because Sivaramakrishnan merely teaches the use of a valve body comprising either a diaphragm or a bellows for the purpose of controlling liquid flow

Similarly, Yuuki fails to remedy this deficiency of Nishizato and Sivaramakrishnan because Yuuki merely teach the use of a vaporizing chamber having a conical shape.

Further, Hofmann fails to remedy this deficiency of Nishizato, Sivaramakrishnan and Yuuki because Hofmann merely teaches that the sizing of a vaporization chamber for supplying a processing gas to a deposition chamber is scalable.

Accordingly, the cited prior art, analyzed individually or in combination, fails to disclose, teach or suggest the claimed invention wherein the vaporization valve body is located on a side opposite to the vaporizing chamber with respect to the small aperture, the vaporization valve body being entirely located outside the vaporizing chamber, thereby permitting uninhibited flow of vapor of the liquid material achieving a smooth flow of vapor of the liquid material in the vaporizing chamber, as recited in the rejected claims.

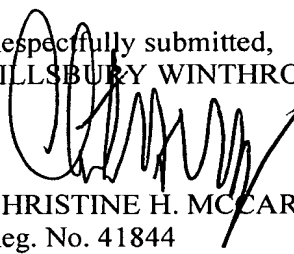
As a result, the cited prior art fails to disclose, teach or suggest the claimed invention that eliminates a component which may change a direction of flow of vaporized liquid in the vaporization chamber and generate a pressure loss in the vaporization chamber (See the specification, page 17, lines 6-19).

Accordingly, claims 1-24 are patentable over the cited prior art for the reasons asserted herein. Therefore, Applicants request that the Examiner issue a Notice of Allowance indicating the allowability of the pending claims. However, if anything further is necessary to place the application in condition for allowance, Applicants respectfully request that the Examiner telephone Applicants' undersigned representative at the number listed below.

KOJIMA ET AL. -- 09/658,501
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Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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